

VOLUME 10 (SPECIAL ISSUE 2) 2024

ISSN 2454 – 3055

Manuscripts under Special Issue are published under the theme "Modern Aspects of Applied Biology"

Guest Editor: Dr. S. Mohanasundaram

Department of Biochemistry and Crop Physiology,
SRM College of Agricultural Sciences, SRM Institute
of Science and Technology, Tamil Nadu, India

Assistant Guest Editors: Dr. Sunil Alphonse

Government College of Physical Education,
Khozikode, Kerala, India

Dr. K. Geetha

Meenakshi Academy of Higher Education and
Research, Kanchipuram, India

INTERNATIONAL JOURNAL OF ZOOLOGICAL INVESTIGATIONS

*Forum for Biological and Environmental
Sciences*

Published by Saran Publications, India



International Journal of Zoological Investigations

Contents available at Journals Home Page: www.ijzi.net

Editor-in-Chief: Prof. Ajai Kumar Srivastav

Published by: Saran Publications, Gorakhpur, India



ISSN: 2454-3055

Effect of Psychological Skill Training on Motivation and Anxiety Among Sepaktakraw Strikers

Bijitha Vincent* and Dhinu M.R.

Department of Physical Education, Sree Sankaracharya Institute of Sanskrit, Kalady, Kerala, India

**Corresponding Author*

Received: 14th September, 2024; **Accepted:** 5th October, 2024; **Published online:** 5th November, 2024

<https://doi.org/10.33745/ijzi.2024.v10ispl2.003>

Abstract: Sports psychologists work directly with athletes to help them develop mental techniques and abilities that complement their physical training. The present study evaluates the effects of psychological skill training on significant psychological variables, such as motivation and anxiety, among Sepaktakraw strikers using a questionnaire and GSR Biofeedback machine. The research aims to assess how well 'psychological skill training methods improve strikers' mental components. Evaluations and observations were used to gather data for this study. The participants in this study were recruited from St. Joseph English Medium School in Pazhookara, India. A total of 30 Sepaktakraw strikers, aged 12 to 15, were included. They were randomly assigned to two groups: the experimental group (n = 15) and the control group (n = 15) while the control group did not receive any training. The experimental group underwent the psychological skill training (PST) program which included various psychological skills training exercises designed to enhance mental resilience, focus, and motivation among the participants along with their regular Sepaktakraw practices. The anxiety levels were assessed using a GSR Biofeedback machine in a lab, and motivation was measured using the Sports Motivation Scale-6 (SMS-6). The data were analyzed using paired sample t-tests. The results of this study support the hypothesis that psychological skill training (PST) has a significant impact on anxiety reduction and motivation enhancement among the players. The experimental group, which underwent a six-week PST program, experienced a marked decrease in anxiety levels and a significant increase in motivation when compared to the control group. This study demonstrated that psychological skill training (PST) has a positive impact on anxiety reduction and motivation enhancement among Sepaktakraw strikers aged 12 to 15. These findings underscore the potential benefits of PST programs for young athletes participating in Sepaktakraw and other sports.

Keywords: Sepaktakraw, Motivation, Anxiety, GSR Biofeedback, Psychological skill training

Citation: Bijitha Vincent and Dhinu M.R.: Effect of psychological skill training on motivation and anxiety among sepaktakraw strikers. Intern. J. Zool. Invest. 10(Special Issue 2): 12-16, 2024.

<https://doi.org/10.33745/ijzi.2024.v10ispl2.003>



This is an Open Access Article licensed under a Creative Commons License: Attribution 4.0 International (CC-BY). It allows unrestricted use of articles in any medium, reproduction and distribution by providing adequate credit to the author (s) and the source of publication.

Introduction

Sepaktakraw, a sport blending elements of soccer and volleyball, has garnered widespread

popularity, particularly in Southeast Asia, owing to its blend of athleticism, agility, and strategic

gameplay. However, beyond its physical demands, Sepaktakraw presents a unique set of mental challenges to its athletes, especially adolescents. Performance-related anxiety often lurks in the shadows, casting doubt on every move while maintaining motivation amidst rigorous training becomes a daily battle. Recognizing the importance of addressing these psychological aspects, Psychological Skill Training (PST) has emerged as a beacon of hope, offering athletes the tools to navigate the intricate realm of their inner game.

In the pulsating arena of Sepaktakraw, success is not merely defined by flawless kicks and lightning-fast spikes but also by mastery over the mind. As young athletes navigate the competitive landscape, they encounter a multitude of psychological hurdles – from the daunting specter of performance anxiety to the relentless pursuit of motivation amidst the rigors of training. In this dynamic interplay of mind and body, PST emerges as a transformative force poised to unlock athletes' latent potential by honing their mental acuity and fortitude.

Rooted in the principles of sports psychology, PST represents a holistic approach to athlete development, transcending the confines of physical training to delve into the depths of the psyche. Through structured interventions and targeted exercises, PST empowers athletes to cultivate a resilient mindset, sharpen their focus, and ignite the flames of intrinsic motivation; in the context of Sepaktakraw, where split-second decisions and unwavering determination reign supreme, the value of PST becomes even more pronounced, offering a pathway to excellence that transcends the limitations of physical prowess alone.

Against the backdrop of athletic aspiration and psychological exploration, this study embarks on a quest to unravel the mysteries of PST's impact on anxiety and motivation among Sepaktakraw strikers aged 12 to 15. By delving into the intricacies of the human psyche and its interplay with athletic performance, we seek to illuminate

the transformative potential of PST as a catalyst for growth and empowerment. Through meticulous analysis and thoughtful reflection, we endeavor to pave the way toward mental resilience and peak performance in the realm of Sepaktakraw, offering insights that resonate far beyond the confines of the court.

Materials and Methods

Participants

The participants in this study were recruited from St. Joseph English Medium School in Pazhookara, India. A total of 30 Sepaktakraw strikers, aged 12 to 15, were included. They were randomly assigned to two groups: the experimental group ($n = 15$) and the control group ($n = 15$).

Procedure

The experimental group received a structured PST program that consisted of three one-hour sessions per week for six weeks. The PST program included various psychological skills training exercises designed to enhance mental resilience, focus, and motivation among the participants (Gould and Carson, 2008). In contrast, the control group did not receive any specialized training during this period and continued with their regular Sepaktakraw training.

Instruments

Anxiety levels were assessed using GSR Biofeedback, a reliable and widely used tool for measuring physiological responses associated with anxiety (Khanna *et al.*, 2014). Participants' skin conductance responses were monitored during both pre-training and post-training assessments.

Motivation was measured using the Sports Motivation Scale-6 (SMS-6) (Mallet *et al.*, 2007). This scale assesses six dimensions of motivation, including intrinsic motivation, extrinsic motivation, and motivation, providing a comprehensive view of an athlete's motivational profile.

Table 1: Paired Samples Statistics (Anxiety)

Group			Mean	N	Std. Deviation	Std. Error Mean
Control	Pair 1	Anxiety-pre	17.4667	15	1.80739	0.46667
		Anxiety-post	17.4000	15	1.84391	0.47610
Experimental	Pair 1	Anxiety-pre	18.6000	15	2.19740	0.56737
		Anxiety-post	15.1333	15	2.06559	0.53333

Table 2: Paired Samples Test (Anxiety)

Group			Paired Differences					t	df	Sig. (2-tailed)
			Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
						Lower	Upper			
Control	Pair 1	Anxiety-pre –anxiety-post	0.06667	1.22280	0.31573	-0.61050	0.74383	0.211	14	0.836
Experimental	Pair 1	Anxiety-pre –anxiety-post	3.46667	2.19957	0.56793	2.24859	4.68475	6.104	14	0.001

Table 3: Paired Samples Statistics (Motivation)

Group			Mean	N	Std. Deviation	Std. Error Mean
control	Pair 1	Motivation-pre	100.2000	15	3.96773	1.02446
		Motivation-post	99.2000	15	3.40588	0.87939
experimental	Pair 1	Motivation-pre	99.6667	15	5.51189	1.42316
		Motivation-post	128.8667	15	5.42305	1.40023

Data Analysis

The data were analyzed using paired sample t-tests to compare anxiety and motivation scores before and after the training period for both the experimental and control groups. The significance level was set at $p < 0.05$.

Results

Anxiety

The control group showed minimal changes in anxiety scores from pre-training ($M = 17.47$, $SD = 1.81$) to post-training ($M = 17.40$, $SD = 1.84$) (Table 1), with no significant difference ($t(14) = 0.211$, $p = 0.836$) (Table 2). In contrast, the experimental group demonstrated a significant

decrease in anxiety levels from pre-training ($M = 18.60$, $SD = 2.20$) to post-training ($M = 15.13$, $SD = 2.07$) (Table 1) and $t(14) = 6.104$, $p < 0.001$ (Table 2), indicating a substantial reduction in anxiety following PST.

Motivation

Regarding motivation, the control group showed a marginal increase in motivation scores from pre-training ($M = 100.20$, $SD = 3.97$) to post-training ($M = 99.20$, $SD = 3.41$) (Table 3), which was not statistically significant ($t(14) = 1.334$, $p = 0.203$) (Table 4). In contrast, the experimental group exhibited a significant increase in motivation levels from pre-training ($M = 99.67$, $SD = 5.51$) to post-training ($M = 128.87$, $SD = 5.42$)

Table 4: Paired Samples Test (Motivation)

Group			Paired Differences					t	df	Sig. (2-tailed)
			Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
						Lower	Upper			
Control	Pair 1	Motivation-pre – Motivation-post	1.00000	2.90320	.74960	-0.60774	2.60774	1.334	14	0.203
Experimental	Pair 1	Motivation-pre – Motivation-post	-29.20000	5.25357	1.35647	-32.10933	-26.29067	-21.527	14	0.001

(Table 3) and $t(14) = -21.527$, $p < 0.001$ (Table 4), indicating a substantial boost in motivation following PST.

Discussion

The results of this study support the hypothesis that psychological skill training (PST) has a significant impact on anxiety reduction and motivation enhancement among Sepaktakraw strikers aged 12 to 15. The experimental group, which underwent a six-week PST program, experienced a marked decrease in anxiety levels and a significant increase in motivation when compared to the control group. These findings are consistent with previous research indicating the effectiveness of PST in enhancing athletes' mental well-being and performance (Weinberg and Gould, 2015).

The reduction in anxiety levels among the experimental group suggests that PST may help young Sepaktakraw strikers better cope with the psychological stressors associated with competitive sports. This is particularly relevant given the importance of mental resilience in sports performance (Connaughton *et al.*, 2008).

The significant increase in motivation observed in the experimental group highlights the potential of PST to enhance athletes' intrinsic motivation, which is crucial for long-term

engagement and success in sports. The motivation enhancement could contribute to improved training adherence and performance in Sepaktakraw. This finding aligns with previous studies emphasizing the role of motivation in athletic performance and engagement (Vallerand, 2007).

Conclusion

To our knowledge, this is the first study to investigate the sublethal and environmental concentrations of triclosan-induced gonadal toxicity mediated through oxidative stress, which could also impart genetic damages in erythrocytes of the fish, *Anabas testudineus*. Taken together, the evaluation of oxidative stress and cytogenetic damages provides a diagnostic and predictive tool for the environmental quality assessment.

References

- Connaughton D, Hanton S and Jones G. (2008) The development and maintenance of mental toughness in the world's best performers. *Sport Psychologist* 22(2): 175-196.
- Gould D and Carson S. (2008) Life skills development through sport: Current status and future directions. *Int Rev Sport Exercise Psychology* 1(1): 58-78.
- Khanna A, Paul M and Kaliappan KV. (2014) A review on biofeedback system for sportspersons. *Procedia Engineering* 72: 863-869.

Mallett CJ, Kawabata M, Newcombe P, Otero-Ferero A and Jackson SA. (2007) Sports Motivation Scale-6 (SMS-6): A revised six-factor sport motivation scale. *Psychology Sport Exercise* 8: 600-614.

Vallerand RJ. (2007) Intrinsic and extrinsic motivation in sport and physical activity: A review and a look at the future. In: *Handbook of sport psychology*, (eds.) Tenenbaum G. and Eklund R.C., John Wiley & Sons, Inc., pp. 59-83

Weinberg R and Gould D. (2015) *Foundations of Sport and Exercise Psychology*, 6th edn., Champaign, IL: Human Kinetics.